



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C10-6-PO
Job Sheet 182942



Part No: C10-6-PO

Job Qty: 30 ea *330*

Part Name: Trunnion



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/6/18

Job Tracking No:

Created By: Patrick Lussier

Due Date: 11/1/18

Type: Stock

Description:

Note: DWG C10-5A_C10-5KA Rev. 3 IPP Rev. A 18.09.05 Now outsource DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	330 pcs		11/1/18	0.00	0.00	Purchasing		<i>38</i> OCT 24 2018
110	Packaging	30 pcs		11/1/18	0.00	0.00	Packaging2		<i>38</i> OCT 24 2018
120	QC	30 pcs		11/1/18	0.00	0.00	QC6		<i>38</i> OCT 24 2018
130	Packaging	30 pcs		11/1/18	0.00	0.00	Packaging3		<i>38</i> OCT 24 2018
140	QC21-FG	30 Ea		11/1/18	0.00	0.00	QC21		<i>38</i> OCT 24 2018

Part Op 100 - Issue PO to P.J. MACHINAGE P/O: *040952* MANUFACTURE C10-6 AS PER DWG - Certificate of conformity is Descriptions: required

SEPT 10 2018 x 30 Dr h

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
C10-6P	Trunnion	30 pcs (1 ea)	100-Purchasing	<i>S/120949</i>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	C10-6P	30	1	0

Part Specifications

Specifications could not be found.

Plex 9/6/18 3:08 PM dart.Lussier.Patrick



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S120950



Part: C10-6

Job No: 182942

Serial No/Batch: S120950

Revision: 3

Inspector:

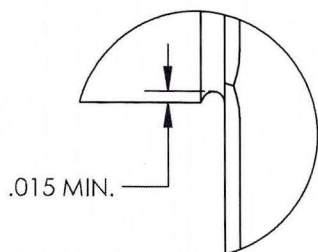
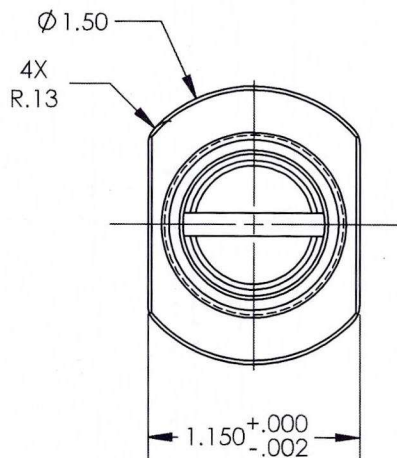
Exp Date:

Instructions:

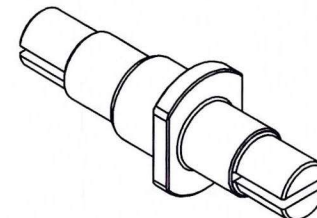
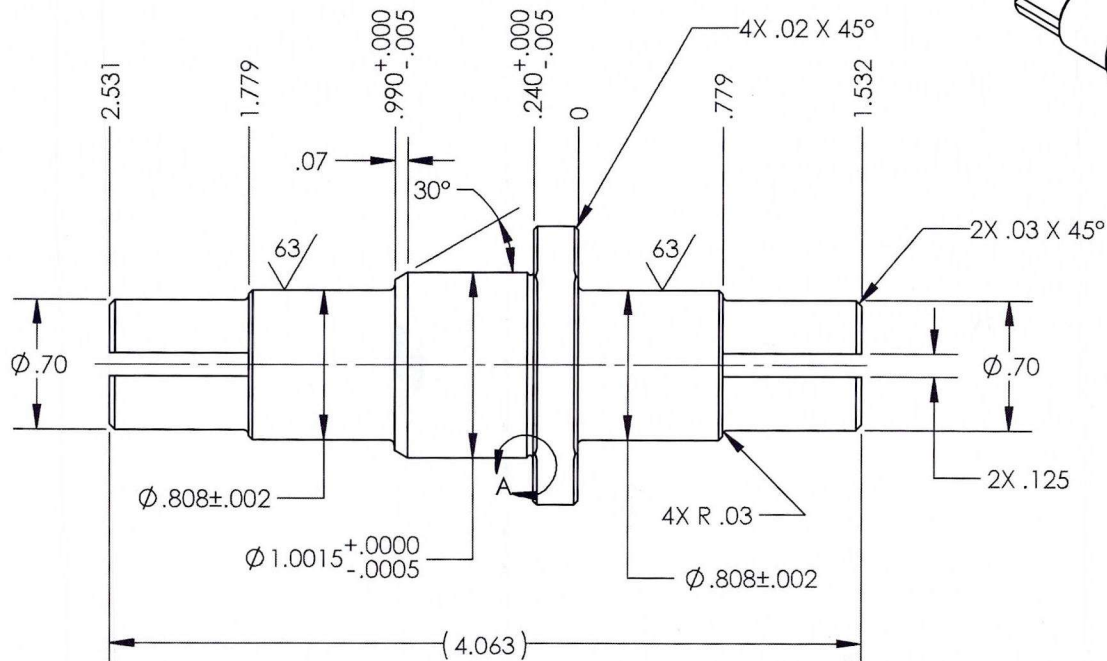
Date: 10/24/18

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
D		AS DRAWN BY APICAL.	5/1/2013	CFS	
1		C10-6 CH'D TOLERANCE WAS 1.500+.000-.002 IS Ø1.50.	10/9/2013	CFS	GE
2	14-0114	C10-6 ADDED BAG & LABEL NOTE.	8/8/2014	DPD	RW



DETAIL A
SCALE 4:1



NOTES:

1. NICKEL PLATE APPLIED AT ASSEMBLIES C10-5A & C10-5KA.
2. BAG & LABEL WITH BATCH NUMBER.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *181595*

(C10-6)

TRUNNION

DART AEROSPACE	
TITLE LOAD BEAM ASSEMBLIES	
DWG NO. C10-5A/C10-5KA	REV 3
MAT'L 4140/4142	DRAWN BY: CANAM
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED: <i>D West</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT HRC 44-46
.XX ± .01 ANGLES ± 5°	FINISH SEE SHEETS 2 & 3 NOTE 1
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:1	DATE 5/22/2002
SHEET 6 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
<table style="width:100%; border: none;"> <tr> <td style="width:25%; vertical-align: top;"> Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="width:25%; vertical-align: top;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> <td style="width:25%; vertical-align: top;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="width:25%; vertical-align: top;"> FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> <td style="width:25%; vertical-align: top;"> Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ </td> <td style="width:25%; vertical-align: top;"> Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐ </td> </tr> </table>					Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐											
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OTHER : 20181																					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040952**

Supplier: PJM001-VC
P.J. Machinage
1381 Rte Cite-Des-Jeunes
St-Lazare
QC
J7T 2B8
Phone: 450-455-0705

PO No: PO040952
PO Date: 9/10/18
Due Date: 11/5/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lussier, PatrickPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments: *Revision*

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	182940	C10-10-1P			Actuator Shaft	Firmed	-	11/5/18	25 pcs	0 pcs	25 pcs	\$64.60/pcs	\$1,615.00
2	182941	C10-9-4P			Latch Shaft Bushing	Firmed	-	11/5/18	50 pcs	0 pcs	50 pcs	\$18.77/pcs	\$938.50
3	182942	C10-6P			Trunnion	Firmed	-	11/5/18	33 pcs	0 pcs	33 pcs	\$72.39/pcs	\$2,388.87
4	182943	C10-8P			Trunnion Bushing	Firmed	-	11/5/18	40 pcs	0 pcs	40 pcs	\$22.80/pcs	\$912.00
5	182944	C45-4-2P			Trunnion, Load Beam	Firmed	-	11/5/18	20 Ea	0 Ea	20 Ea	\$56.53/Ea	\$1,130.60
6	182945	C45-13-1P			Keeper Bushing	Firmed	-	11/5/18	40 pcs	0 pcs	40 pcs	\$20.90/pcs	\$836.00
7	182946	C3-8-2-2P			Solenoid Drilling Jig C3 Hook	Firmed	-	11/5/18	62 pcs	0 pcs	62 pcs	\$9.98/pcs	\$618.76
8	182947	C2-3-3P			Latch Roller	Firmed	-	11/5/18	50 Ea	0 Ea	50 Ea	\$19.95/Ea	\$997.50
9	182948	C3-12-4P			Lock Roller	Firmed	-	11/5/18	60 pcs	0 pcs	60 pcs	\$18.86/pcs	\$1,131.60
10	182949	C3-3-7P			Link	Firmed	-	11/5/18	50 pcs	0 pcs	50 pcs	\$23.90/pcs	\$1,195.00
11	182950	PC250-775P			Lever Arm Bushing	Firmed	-	11/5/18	15 pcs	0 pcs	15 pcs	\$77.90/pcs	\$1,168.50
12	182951	C45-18-5P			Boss	Firmed	-	11/5/18	52 Ea	0 Ea	52 Ea	\$11.40/Ea	\$592.80
												Grand Total:	\$13,525.13

DAC
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9-89



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO040952

Order Notes

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "RL", located to the right of the Order Notes section.

Plex 10/23/18 3:53 PM dart.Lussier.Patrick

P.J. Machinage (9052 9470 Qc Inc).
1381, Rte Cité-Des-Jeunes,
St-Lazare, Qc
J7T 2B8

Tel. : 450 455-0705

Customer : 628

Dart Aerospace Ltd.
Accounts payable
1270 Aberdeen St
Hawkesbury, Ontario
K6A 1K7

Shipping Order

12/09/2018

Order

: 7029

Reference

: PO : PO040952 S/O : 7029

Bid

: 15074

Ship

: Votre camion

Ship To

Same

Fax: 1 613 632-5246

Item No.	Description	Qty	Qty. Delivere	B/O Qty
001	C45-4-2 Rev. 20 Trunnion Load Beam (J-7029-A)	20	<u>0</u>	<u>20</u>
002	C10-10-1 Rev. 3A Actuator Shaft (J-7029-B)	25	<u>0</u>	<u>25</u>
003	C45-13-1 Rev. 4A Keeper Bushing (J-7029-C)	40	<u>0</u>	<u>40</u>
004	C10-9-4 Rev. 2A Latch Shaft Bushing (J-7029-D)	50	<u>0</u>	<u>50</u>
005	C3-8-2-2 Rev. 3 Solenoid Pin Spacer J-7029-E)	60	<u>62</u> ✓	<u>0</u>
006	C2-3-3 Rev. 4A Latch Roller (J-7029-F)	50	<u>0</u>	<u>50</u>
007	C10-6 Rev. 3 Trunnion (J-7029-G)	30	<u>33</u> ✓	<u>0</u>
008	C3-12-4 Rev. 1A Lock Roller (J-7029-H)	60	<u>0</u>	<u>60</u>
009	C3-3-7 Rev. 4A Link (J-7029-I)	50	<u>0</u>	<u>50</u>
010	PC250-775 Rev. 1A (J-7029-J)	15	<u>0</u>	<u>15</u>
011	C45-18-5 Rev. 1 Boss (J-7029-K)	50	<u>52</u> ✓	<u>0</u>
012	C10-8 Rev. 1A Trunnion Bushing (J-7029-L)	40	<u>0</u>	<u>40</u>

P.J. Machinage retains ownership of all goods sold and other work-product delivered to or performed for its customer until full and complete payment of the underlying invoice, even in circumstances where the part to be machined or materials were provided by the customer. In cases where the part of materials belonged to the customer before it is remitted to P.J. Machinage for the purpose of performing work thereon, its delivery to P.J. Machinage shall entail a transfer of the underlying rights of ownership of the customer over said part or materials.

Shipping : Votre Camion
Package No : _____

Ref. : _____

Merchandise Received: 24/10/2018

PJ Machinage**Certificate of conformance****Sold to:**

Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON, K6A 1K7

Supplier address:

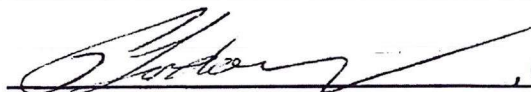
PJ Machinage
1381 Route Cité-Des-Jeunes
St-Lazare, Qc, J7T 2B8

Purchase Order: PO040952 ✓

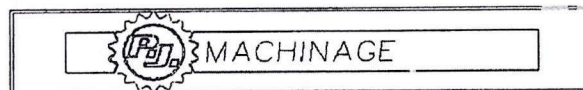
This is to certify that the below names items were inspected and/or tested to your drawings, specifications and purchase order. Objective evidence are shipped with the products and are on file to support the verifications and/or tests and can be made available on request, unless otherwise noted.

<u>Part Number</u>	<u>Quantity</u>	<u>Description</u>
C3-8-2-2 Rev.3 ✓	62 ✓	<u>Solenoid Pin</u>
C10-6 Rev.3 ✓	33 ✓	<u>Trunnion</u>
C45-18-5 Rev.1 ✓	52 ✓	<u>Boss</u>

DAC
36
9-88

 , October 23 , 2018

CLIENT: 628
 JOB No.: 70201-E
 PLAN No.: 040452
 P.O.: 040452
 QUANTITÉ: 62



DATE: 01-10-2018
 FORMAT No.: 001
 PAGE No.:

CONTRÔLE DE QUALITÉ

NOM DE LA PIÈCE: C3-8-2-2 Rev.3 Solenoid Spacer MATÉRIEL: SS303

DIMENSIONS DE DESSIN ET TOLERANCE									
PIÈCE No.	$\phi 0.760^{+0.005}_{-0.005}$	$\phi 0.714^{+0.004}_{-0.004}$	$0.110^{+0.002}_{-0.002}$						
		pin $\phi 0.714$							
		pin $\phi 0.715$							
DIMENSIONS DE LA PIÈCE									
	$\phi 0.757$	$\phi 0.71460$	0.108						
	$\phi 0.758$	$\phi 0.70$	0.107						
	$\phi 0.758$	0.70	0.107						
	$\phi 0.758$	0.70	0.108						
	$\phi 0.757$	0.70	0.108						
		pin $\phi 0.715$							
		no 0.70							
		no 0.70							
		no 0.70							
		no 0.70							
		no 0.70							
		no 0.70							
	358	314	109						
	359	315	108						

OBSERVATION:

SIGNATURE RESPONSABLE:

Acciaierie Valbruna S.p.A.



36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Ciente / Cliente / Purchaser / Client
VALBRUNA CANADA LTD
8724 HOLTGATE CRESCENT
LST 5Z1-MILTON, ONT LST 5Z1-CAN

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller / Hersteller / Producer

Oggetto Prove: - Annealed Cold Drawn
Prüfungszustand / Inspection / Finishage

Avviso di Spedizione: D-VI09026284
Lieferanten / Packing list / A.L.

Ordine nr: 911002485 Stock - Canada
Bestell / Your order / Commande

Tipo di Elaborazione: E+AOD
Erweiterung / Entwicklung / Prozess / Mode d'elaboration

CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2005) , 3.1

Certificato nr: MEST813190/2009/
Prüfung / Test / Essai

Conferma ordine nr: EI09006769
Werkz / Our Order / Ref n°

Marchio di Fabbrica:
Zeichen des Werks / Markierung
Tracé mark
Signe de l'usine / production

Punzone del Collaudatore:
Stempel des Werks / Sachverständigen
Inspector's stamp / Imprimé du Contrôleur



Specifiche:
Anforderungen / Requirements / Exigences

VSI 0 303 HS A,CF
ASME SA320 2007 B8F
ASTM A370 2009A
QQ-S-764 B/2 303 A
(0) SEC. II PT. A 2007 EDITION ADD. 2008a
(1) Chemical analysis only.

AMS 5640 U S30300 A
ASTM A314 2008 S30300
ASTM A582 2005 S30300 A

AMS 5640 U TYPE 1 A
ASTM A320 2008 B8F (1)
MIL-S-862 B/1 303

0 Chemical analysis only.

Qualità: 303
Werkstoff / Grade / Nuance

Marca: MV188ZHS MAXIVAL
Markenbezeichnung / Brand / Nuance

Punzonatura: 303
Kannzeichnung / Marking / Marqueage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Objet Product description Désign. du produit	Dimensioni - In Abmessungen Dimensions Dimension	Tolleranza Toleranz Tolerance	Lunghezza - In Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0010	Round	0,3750	484-08	147 / 147	420753		2.068	925800292

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été livré conforme aux exigences

Controllo antimiscelanza: OK
Vermischungsprüfung: positiv / analytisch durchgeführt
A mixing testing performed: OK
Contrôle antimelange: satisfaisant

Controllo visivo e dimensionale: soddisfatta le esigenze:
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks: satisfactory
Contrôle visuel et dimension: satisfaisant

TEST ALLO STATO DI FORNITURA									
Test on delivery condition Prüfung auf lieferbarem Produkt test à l'état de fourniture Prueba sobre el material así como entregado									
TEST	Proveite / Provenit Eigenschaften / Eigenschaften Long. Min. Spec. Größe / Dim. / Größe Min. Dim. / Thickness Long. Min. Spec. mm	°F	Proveite / Provenit Eigenschaften / Eigenschaften Yield Stress Rp 0,2% k.s.i.	Snervamento Biegegrenze Yield Stress Line elastic k.s.i.	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.i.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Knickdehnung Reduction of area Striction RA %	Resilienza Kerndeckung Impact Value Proof stress	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen / Requirements Values demanded	min max								140 255
A	8,75	- 68	L	87	112	32	50		254

TEST	min	max
A Grain size for ASTM E112		6

Mechanical properties according to ASTM A370.

IX - longitudinal testing, T - transverse, Q - Tangential testing

Analisi chimica

Chemische Zusammensetzung / Chemical Analysis / Analyse chimique

Colata / Heat Schmelze / Coulee	min 0,030 max 0,050	0,20 1,00	1,50 2,00	17,00 19,00	0,60 1,00	1,00 1,00	8,00 10,00	0,100 0,100	0,32 0,40	0,4000 0,4000	-	-	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %			
420753	0,036	0,45	1,87	17,42	0,35	0,61	8,36	0,10	0,025	0,34	0,0040			

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.

Annealing temperature: 1940°F for 0.5 h/water.

Micro and macro etch test: OK

Material is DFARS Compliant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex 1, s. 4.3 by TÜV and LLOYD'S

Q.C. Reviewed

Vicenza, 04/12/09

VC0008
(Mod. MCER)

Il collaudatore di stabilimento / der Werksachverständiger / Works inspector / L'agent d'usine

M. Rizzotto

Pagina - 1 di 1

CLIENT:

JOB No.:

PLAN No.:

P.O.:

QUANTITÉ:

628

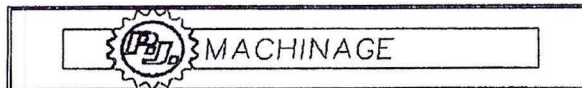
7039-5

P

P0000 952

33

NOM DE LA PIÈCE:



CONTRÔLE DE QUALITÉ

C18-6 REV.3 TRUNNION

MATÉRIEL: 4140

DATE:

FORMAT No.:

001

PAGE No.:

DIMENSIONS DE DESSIN ET TOLERANCE

PIÈCE No.	4.063	φ-1.50	φ-70	φ-80.8 ^{+0.002}	φ-1.001 ^{+0.0005}	-240 ^{+0.0005}	.125	1.150 ^{+0.002}
1	4.063	φ-1.50	φ-70	φ-80.8	φ-1.001	-238	.126	1.1485
5	4.063	φ-1.50	φ-70	φ-80.8	φ-1.001	-238	.127	1.1485
15	4.063	φ-1.50	φ-70	φ-80.7	φ-1.001	-238	.127	1.1487
120	4.063	φ-1.50	φ-70	φ-80.7	φ-1.001	-238	.127	1.1487
25	4.063	φ-1.50	φ-70	φ-80.7	φ-1.001	-238	.127	1.1487
33	4.063	φ-1.50	φ-70	φ-80.7	φ-1.001	-238	.122	1.1487
	4.063	1.149	699	8085	1.001			

OBSERVATION:

SIGNATURE RESPONSABLE:

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

7029-G (1/2)

Page 01 of 02

Certification Date

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

21733

PART NUMBER/NUMÉRO DE PIÈCE

506264

Invoice Number
S243570

SOLD TO: ACIER ANICA STEEL INC.
VENDU À:

2082 AVE CHARTIER
DORVAL PQ H9P 1H2

SHIP TO:
EXPÉDIÉ À:

ACIER ANICA STEEL INC.

2082 AVENUE CHARTIER
DORVAL PQ H9P 1H2

Description: 4140/4142 HR ANN BAR ASTM A322
1-3/4 RD X 11' 8" / 8' 3"
HEAT: 4909652

ITEM: 506264

Line Total: 165 LB

Specifications:
ASTM A322 91

ASTM A304 96

CHEMICAL ANALYSIS

C	MN	P	S	SI	CU	NI	CR
0.41	0.9	0.014	0.026	0.24	0.17	0.18	0.98
10	AL	V	N	CB	SN		
0.24	0.025	0.008	0.008	0.002	0.007		

RCPT: R781410

MILL: REPUBLIC TECHNOLOGIES INT'L

COUNTRY OF ORIGIN: USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
					179

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

Recording of false, fictitious, or fraudulent statements in connection with test results punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

Neil Becker

MANAGER, QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

1029-G (2/2)
737

Page 02 of 02

Certification Date

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

21733

PART NUMBER/NUMÉRO DE PIÈCE

506264

Invoice Number
S243570

SOLD TO: ACIER ANICA STEEL INC.
VENDU À:

2082 AVE CHARTIER
DORVAL PQ H9P 1H2

SHIP TO:
EXPÉDIÉ À:

ACIER ANICA STEEL INC.

2082 AVENUE CHARTIER
DORVAL PQ H9P 1H2

Description: 4140/4142 HR ANN BAR ASTM A322
1-3/4 RD X 11' 8" / 8' 3"

Line Total: 165 LB

HEAT: 4909652 ITEM: 506264
END-QUENCH HARDENABILITY (JOMINY - RC) IN

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
55	55	55	55	55	54	54	54	54	53	53	52	52	51	50
16	18	20	22	24	26	28	30	32						
49	47	46	44	43	42	41	40	39						

RAIN SIZE : 7 -

STRAND CAST MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL

COMMENTS

REDUCTION RATIO: 19.0 TO 1
MELT SOURCE: RTI-FRANKLIN
MELT COUNTRY: USA
HOT ROLL SRCE: RTI-LACKAWANNA
HOT ROLL COUNTRY: USA
MELT METHOD: STRAND

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

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Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

NIL BROCHU

Nil Brochu

MANAGER, QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
331140	1

CLIENT / customer 236

P.J. MACHINAGE

1381 ROUTE LA CITÉ DES JEUNES

ST-LAZARRE

QC J7T 2B8

LIVRÉ À / shipped to:

P.J. MACHINAGE

1381 ROUTE LA CITÉ DES JEUNES

ST-LAZARRE

QC J7T 2B8

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
135401	N/A	4140		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications				
SEL HARDEN				
HARDEN AND TEMPER				
EXIGENCE / requirement SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results				
HARDNESS		42 - 46 HRC	11	45 - 46 HRC
(907)				
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
120	35	PIECES (87) PIECES		
		2 BOITE DE CARTON		

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2018-10-20

Pierre Piché
Chief Inspector



APPROUVÉ



P.J. MACHINAGE

CONTRÔLE DE QUALITÉ

MATÉRIEL: 1018

OBSERVATION:

SIGNATURE RESPONSABLE:

4848

RHR-114

7029-K

51162

TRA-2804

Page 1/1



CA-ML-CAMBRIDGE
160 ORION PLACE
CAMBRIDGE, ON N1T 1R9
Canada

CERTIFIED MATERIAL TEST REPORT

CUSTOMER SHIP TO

LES ACIERS TRANSBEC 1997 LTEE
22 J F KENNEDY BLVD
SAINT-JEROME, QC J7Y 4B4
Canada

CUSTOMER BILL TO

LESACIERS TRANSBEC 1997 LTEE
4054 BOUL LE CORBUSIER
LAVAL, QC H7L 5R2
Canada

GRADE
GGMULTI

SHAPE / SIZE
Round Bar / 1 1/4" *RHR114*

DOCUMENT I
0000066269

LENGTH
20'00"

WEIGHT
4,804 LB

HEAT / BATCH
52081985/03

SALES ORDER
6255805/000170

CUSTOMER MATERIAL N°

SPECIFICATION / DATE or REVISION
ASME SA36, ASTM A529-14
ASTM A6-17, A36-14, A572-15
ASTM A709-17, AASHTO M270-15
CSA Q40.20-13/Q40.21-13

CUSTOMER PURCHASE ORDER NUMBER
OU50405FSQ2MP

BILL OF LADING
1301-0000035369

DATE
05/02/2018

CHEMICAL COMPOSITION											
C %	Mn %	P %	S %	Si %	Cu %	Ni %	Cr %	Mo %	V %	Nb %	CEgyA6
0.14	0.72	0.016	0.029	0.18	0.42	0.13	0.12	0.020	0.000	0.016	0.32

MECHANICAL PROPERTIES		G/L		UTS		UTS		YS		YS	
Elong. %		Inch		PSI		MPa		PSI		MPa	
23.00		8.000		74813		516		55639		384	
23.50		8.000		74641		515		55492		383	

GEOMETRIC CHARACTERISTICS
R/R
21.30

COMMENTS / NOTES

This grade meets the requirements for the following grades:
ASTM Grades: A36; A529-50; A572-50; A709-36; A709-50
CSA Grades: 44W; 50W
AASHTO Grades: M270-36; M270-50
ASME Grades: SA36

The above figures are certified chemical and physical test records as contained in the permanent records of company. We certify that these data are correct and in compliance with specified requirements. This material, including the billets, was melted and manufactured in Canada. CMTR complies with EN 10204 3.1.

Bhaskar

BHASKAR YALAMANCHILI
QUALITY DIRECTOR

Phone: (416) 769-1014 Email: Bhaskar.Yalamanchili@gerdau.com

Leonardo Nunes

LEONARDO NUNES
QUALITY ASSURANCE MGR

Phone: (905) 668-8811 EXT 4055 Email: Leonardo.Nunes@gerdau.com



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041424

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO041424
PO Date: 10/23/18
Due Date: 10/31/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:
Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	184646	647.2011	Lower Strut Issue P/O: ANODIZE AS PER DWG Finish: HARD ANODIZE IAW MIL- A-8625 TYPE III, CLASS 2, COLOUR BLACK PRIME IAW MIL- P-23377J TYPE I CLASS N	Firmed	-	10/31/18	8 pcs	0 pcs	8 pcs	\$33.40/pcs	\$267.20

Grand Total: \$267.20

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/24/18 9:58 AM dart.tsimiklis.chrisoula